QP
356
.15
J68

THE JOURNAL

OF

COMPARATIVE NEUROLOGY

FOUNDED BY C. L. HERRICK, 1891

EDITORIAL BOARD

W. MAXWELL COWAN, Managing Editor
Washington University School of Medicine
Saint Louis, Missouri

JAY B. ANGEVINE, JR.
University of Arizona

THEODOR W. BLACKSTAD
University of Aarhus
Denmark

DAVID BODIAN
Johns Hopkins University

MILTON W. BRIGHTMAN
National Institutes of Health

RICHARD P. BUNGE
Washington University

MALCOLM B. CARPENTER
Columbia University

CLEMENT A. FOX
Wayne State University

R. W. GUILLERY
University of Wisconsin

KARL M. KNIGGE
University of Rochester

WALLE J. H. NAUTA
Massachusetts Institute
of Technology

SANFORD PALAY
Harvard Medical School

JERZY E. ROSE
University of Wisconsin

RICHARD L. SIDMAN
Harvard Medical School

J. SZENTÁGOTHAI
Semmelweis University
Hungary

DAVID G. WHITLOCK
University of Colorado

VOLUME 145

MAY — AUGUST 1972

PUBLISHED BY

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

PHILADELPHIA, PA.

COPYRIGHT © 1972 BY
THE WISTAR INSTITUTE PRESS

All rights reserved

Contents

No. 1 MAY 1972

ORVILLE A. SMITH, KENNETH G. KASTELLA AND DAVID C. RANDALL. A Stereotaxic Atlas of the Brainstem for *Macaca mulatta* in the Sitting Position 1

JAMES R. BRAWER. The Fine Structure of the Ependymal Tanycytes at the Level of the Arcuate Nucleus 25

GLENN IRWIN HATTON, JOHN IRWIN JOHNSON AND CAROL ZANDER MALATESTA. Supraoptic Nuclei of Rodents Adapted for Mesic and Xeric Environments: Numbers of Cells, Multiple Nucleoli, and Their Distributions 43

PASKO RAKIC. Mode of Cell Migration to the Superficial Layers of Fetal Monkey Neocortex 61

V. S. CAVINESS, JR. AND R. L. SIDMAN. Olfactory Structures of the Forebrain in the Reeler Mutant Mouse 85

A. J. ROCKEL, C. J. HEATH AND E. G. JONES. Afferent Connections to the Diencephalon in the Marsupial Phalanger and the Question of Sensory Convergence in the "Posterior Group" of the Thalamus 105

No. 2 JUNE 1972

M. A. GRILLO AND J. ROSENBLUTH. Ultrastructure of Developing *Xenopus* Retina Before and After Ganglion Cell Specification 131

ARTHUR D. LOEWY. The Effects of Dorsal Root Lesions on Clarke Neurons in Cats of Different Ages 141

RUDOLF NIEUWENHUYS. Topological Analysis of the Brain Stem of the Lamprey Lampetra fluviatilis 165

JOSÉ A. SOBRINO AND A. GALLEGO. Cytology of the Granular Layer of the Bulbar Cochlear Nuclei 179

C. B. G. CAMPBELL AND W. R. HAYHOW. Primary Optic Pathways in the Duckbill Platypus, *Ornithorynchus anatinus*: An Experimental Degeneration Study 195

LOIS A. GILLILAN. Blood Supply to Primitive Mammalian Brains 209

FRANK SCALIA. The Termination of Retinal Axons in the Pretectal Region of Mammals 223

No. 3 JULY 1972

HANS JORDAN AND HORSTMAR HOLLÄNDER. The Structure of the Ventral Part of the Lateral Geniculate Nucleus. A Cyto- and Myeloarchitectonic Study in the Cat 259

J. H. KAAS, W. C. HALL AND I. T. DIAMOND. Visual Cortex of the Grey Squirrel (*Sciurus carolinensis*): Architectonic Subdivisions and Connections from the Visual Thalamus 273

J. L. O'LEARY, R. R. FOX, J. M. SMITH AND J. INUKAI. Ultrastructural Alterations in Vestibular and Cerebellar Nuclei of the Ataxic Rabbit 307

JOSEPH ALTMAN. Postnatal Development of the Cerebellar Cortex in the Rat. I. The External Germinal Layer and the Transitional Molecular Layer 353

No. 4 AUGUST 1972

JOSEPH ALTMAN. Postnatal Development of the Cerebellar Cortex in the Rat. II. Phases in the Maturation of Purkinje Cells and of the Molecular Layer 399

JOSEPH ALTMAN. Postnatal Development of the Cerebellar Cortex in the Rat. III. Maturation of the Components of the Granular Layer 465

A. KRISHNAMURTI, R. KANAGASUNTHERAM AND W. C. WONG. Functional Significance of the Fibrous Laminae in the Ventrobasal Complex of the Thalamus of Slow Loris 515

Index to Volume 145 525